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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/760,232	01/21/2004	Kia Silverbrook	MPA26US	2211
24011	7590	09/19/2006	EXAMINER	
SILVERBROOK RESEARCH PTY LTD 393 DARLING STREET BALMAIN, NSW 2041 AUSTRALIA			MARTIN, LAURA E	
			ART UNIT	PAPER NUMBER
			2853	

DATE MAILED: 09/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/760,232

Applicant(s)

SILVERBROOK ET AL.

Examiner

Laura E. Martin

Art Unit

2853

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Silverbrook et al. (US 6439908) in view of Lee (US 6069710).

As per claim 1, Silverbrook et al. teaches a printhead assembly, comprising: at least one printhead module (figure 2, element 10) comprising at least two printhead integrated circuits (figure 4, element 18), each of which has nozzles formed therein for delivering printing fluid onto the surface of print media (column 3, lines 45-47), a support member (figure 7, element 16) supporting and carrying the printing fluid for the at least two printhead integrated circuits, and an electrical connector (figure 8, element 48) for connecting electrical signals to the at least two printhead integrated circuits; drive electronics incorporating at least two controllers for controlling the printing operation of at least one of the at least two printhead integrated circuits (column 3, line 49 and column 3, line 59-65) via the electrical connector, the at least two controllers being interconnected (figure 14, elements 58 and 60); and a casing in which the at least one printhead module and the drive electronics are removably mounted (figures 2, 3 and 5, element 14).

As per claim 2, Silverbrook et al. teaches a printhead assembly according to claim 1, wherein: the casing comprises a support frame (figure 2, elements 64, 94, lower parts of 76 and 32) on which at least two mounting elements are arranged in abutting relationship along a longitudinal direction of the casing; and the at least two controllers are each arranged on a printed circuit board (column 3, lines 48-50 and lines 59-65), each of the printed circuit boards being removably mounted (figure 8, element 22) by at least one of the two or more mounting elements (figure 2, element 28) and being interconnected by an electrical connecting member (figure 14, element 96 and 56) located between the abutting mounting elements (figure 5).

As per claim 3, Silverbrook et al. teaches a printhead assembly according to claim 2, wherein each of the mounting elements comprises side regions (figure 5, element 46) having raised and recessed portions arranged so that the recessed portions of abutting mounting elements form a recess into which the electrical connecting member (figure 14, elements 96 and 56) can be placed (column 2, lines 54-58).

As per claim 4, Silverbrook et al. teaches a printhead assembly according to claim 3, wherein the electrical connecting member comprises a non-conductive material (figure 14, element 96) which is clad with conductive strips (figure 14, elements 58 and 60), the electrical connecting member being arranged so as to fit within the recess formed between abutting mounting elements (see figure 5).

As per claim 5, Silverbrook et al. teaches a printhead assembly according to claim 4, wherein the conductive strips are positioned to overlay (figure 14, elements 58 and 60) a series of spaced connection strips at the edge regions (figure 3, elements 102, 106) of each of the individual printed circuit boards (figure 3, element 54).

As per claim 6, Silverbrook et al. teaches a printhead assembly according to claim 5, wherein there is twice as many conductive strips (figure 14, elements 58, 60) of the electrical connecting member as there are connection strips of the printed circuit boards (figure 3, element 28), whereby each connection strip of the printed circuit board will engage with at least one of two adjacent conductive strips (see figure 3).

As per claim 7, Silverbrook et al. teaches a printhead assembly according to claim 2, wherein one printed circuit board having one controller thereon is supported by more than one mounting element (figure 3, elements 24, 26, 28; column 3, lines 49-50 and 59-65).

As per claim 8, Silverbrook et al. teaches a printhead assembly according to claim 1, wherein: the at least one printhead module (figure 2, element 10) is formed as a unitary arrangement of the at least two printhead integrated circuits (figure 4, element 18), the support member (figure 7, element 16), the electrical connector (figure 8, element 48), and at least one fluid distribution member (figure 7, element 26) mounting the at least two printhead integrated circuits to the support member; and the support member has at least one longitudinally extending channel for carrying the printing fluid for the printhead integrated circuits and includes a plurality of apertures (figure 7,

element 42) extending through a wall of the support member arranged so as to direct the printing fluid from the at least one channel to associated nozzles in both, or if more than two, all of the printhead integrated circuits by way of respective ones of the fluid distribution members (figure 7, column 3, lines 45-47).

Silverbrook et al. does not disclose controllers for processing print data and controlling printing via the electrical connector to print processed print data.

Lee discloses controllers for processing print data and controlling printing via the electrical connector (circuit) to print processed print data (column 1, line 35-column 2, line 13).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the printhead assembly of Silverbrook et al. with the disclosure of Lee in order to create more efficient printing apparatus.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-8 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura E. Martin whose telephone number is (571) 272-2160. The examiner can normally be reached on Monday - Friday, 7:00 - 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen D. Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2853

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Laura E. Martin

 9/14/06  
MANISH S. SHAH  
PRIMARY EXAMINER